

Descriptions of Lantana Gall-Fly and Lantana Seed-Fly (Diptera).

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LANTANA GALL-FLY.

Eutreta xanthochaeta new species.

Male. Very similar to *Eutreta sparsa* Wd., except that the bristles of the head and thorax are all pale yellow in color. Head brownish yellow, the front with numerous flattened whitish hairs, of which a row in front of the ocellar triangle are turned backward; a very distinct black spot on the orbit at the level of the first antennal joint; face with two large round black spots; antennae yellow, including the arista. Palpi yellow, the hairs at the tip blackish.

Thorax brownish yellow. Mesonotum covered with flattened, pale yellow hairs; pleura of the same color, with a darker stripe just above the sternopleura; metanotum black, opaque. Abdomen reddish yellow at base, especially on the sides, the first segment elongated, second and third with a transverse dark spot, the fourth mostly black. Hypopygium small, reddish. The hairs of the abdomen are black where the ground color is black. Legs yellow, the femora slightly infuscated, especially on the lower edges; the front femora with an irregular double row of short, yellow bristles above, and on the lower outer side a row of four or five longer yellow bristles which begin at the middle.

Wings broad, but not circular in outline, deep brownish in color, sprinkled with numerous small, whitish dots; the costal edge is white throughout, but very narrowly so, with an undulating border where it joins the darker color. This pale border becomes wider and more uniform beyond the tip of the second vein and ends a short distance beyond the fourth vein; from this point around the hind border of the wing there are about twelve somewhat equally spaced white dots of which the first three or four rest on the margin.

Female. Ovipositor broad at base, about as long as the two preceding segments varying in color from reddish brown to black. Darker specimens show two dark spots close together below the eye, the lower one joining the edge of the mouth and also a median spot at the edge of the mouth.

Length of male, 5.1 mm.; of female, including ovipositor, 6 mm.

Described from twelve specimens of both sexes bred from Lantana in the Hawaiian Islands.

Type. Male, Cat. No. 25,203, U. S. Nat. Mus., Honolulu.

March 18, 1918, O. H. Swezey, Collector. Paratype specimens will be deposited in the collection of the Experiment Station of the Hawaiian Sugar Planters' Association and in the Bernice Pauahi Bishop Museum, Honolulu.

Although this species is an importation from Mexico, there are no specimens in the National Museum from any part of the American Continent which have pale bristles. Hendel in *Abhandlungen und Berichte des Konigl. Zoologischen und Anthropologisch-Ethnographischen Museums zu Dresden*, Band XIV (1912), p. 54, published June 15, 1914, has given a synopsis of the South American forms belonging to this genus, none of which agrees with the present species.

LANTANA SEED-FLY.

Agromyza lantanae * Froggatt.

A minute shining black species, with black halteres, the male having very strong up-curved vibrissae.

Male. Front one-third the head width; orbits very narrow, slightly shining, with four bristles; ocellar triangle shining, a little elongated. Antennae black, small, inserted below the middle of the eyes, a very distinct prominence between them. Facial orbits very narrow, hardly visible; the cheek about one-sixth the eye-height, slightly wider anteriorly where it is a little produced and bears on each side a large bristle or, more correctly, a pencil of hairs which are glued together. This pencil is quite slender at the base and consequently much less tapering than in *curripalpis* Zett., *coniceps* Malloch and *affinis* Malloch. Palpi small, black. Mesonotum with two pairs of dorso-centrals, the small hairs covering the surface extending almost to the scutellum; the latter has four large bristles. Pleura shining black. Halteres black, calypters brown with blackish margin bearing a dense row of short black hairs. Abdomen shining black without any blue or green reflection, not highly polished. Legs entirely black.

Wings subhyaline, narrow at the apex, but widening rapidly toward the base and with a well-developed nearly square anal angle. The anterior cross-vein is barely beyond the tip of the first vein and at about two-

* This name was first used by Froggatt in a paper on the Lantana Fly in the *Agricultural Gazette of New South Wales*, XXX, pp. 665-668, 1919, with the impression that the insect had been previously described under that name. Froggatt gave a very brief description of the fly, not intended as a technical description, and entirely inadequate to distinguish the species. Hence, the advisability of the present description, although the name *lantanae* must be accredited to Froggatt.

thirds of the length of the discal cell. The hind cross-vein a little longer than the preceding section of the fourth vein, about two-thirds as long as the last section of the fifth vein. The costa extends to the fourth vein.

Female. Oral margin only a little produced with a single small vibrissa on each side. Ovipositor short, shining black with numerous hairs, the apical ones as long as any of the abdomen.

Length, 1.5 mm. in both sexes.

Described from thirty-three specimens of both sexes bred from seeds of lantana in the Hawaiian Islands by O. H. Swezey.

I identified this species a few months ago as *Agromyza affinis* Malloch, a species which was described from a single female taken in the vicinity of Washington, D. C. Mr. Malloch doubtfully associates with this female two males from Key West, Fla. I have recently succeeded in identifying the true male of *affinis* from approximately the latitude of Washington. I find that it differs from the male of *lantanae* in having the cluster or pencil of vibrissal hairs much more thickened at the base; that is, apparently part of these hairs are short so they only increase the size of the cluster at the base. I am still unable to see any satisfactory characters for separating the two species in the female sex, but since lantana does not grow at Washington, *affinis* must have an entirely different larval habit, which would tend to confirm their distinctness. Mr. J. C. Bridwell has submitted a series of twelve specimens of an *Agromyza* which he bred from *Lantana camara* at Brownsville, Tex., in April and May, 1921. The specimens are badly denuded, but I do not doubt that they are the same species.

Four specimens sent by Dr. J. F. Illingworth from Gordonvale, North Queensland, where they were bred from lantana, are also the same species. I also include here the two males from Key West, Fla., mentioned by Malloch in connection with his description of *affinis*.